

## 2.0.1 GENERAL OPERATING PROCEDURE

### 2.0.1.1 ROUTINE TASKS - Perform the following tasks each time an air monitoring station is serviced.

1. Check Charts - Log the proper chart identification data (See Section 2.0.2.4.1) and cut off the charts in 24 hour segments from 0000 hours to 2400 hours. Check for indications of malfunctions, proper timing, pollution episodes, adequate supply of chart paper, and condition of ink pads or ink supply.

**NOTE:** To the extent possible, strip chart recorder ink colors should agree with the following conventions: (However, when using a single recorder to monitor, for example O<sub>3</sub> and THC, use contrasting colors.)

Oxidant, O <sub>3</sub> , THC	- green
NO <sub>x</sub> , CO	- red
NO, AISI	- black
NO <sub>2</sub> , SO <sub>2</sub>	- blue
CH <sub>4</sub> , H <sub>2</sub> S	- brown

2. Note unusual odors and noises - An unusual odor may indicate a point source of a pollutant or a malfunctioning instrument. A new noise or absence of a familiar noise can also indicate a malfunction in the equipment.
3. Check and log the pressures of the gas cylinders - Order a replacement cylinder when the supply pressure drops below 500 psig (300 psig for superblends) or one month before the certification expiration date (whichever comes first) (see Table 2.0.1.1). Investigate excessive drops in cylinder pressures.
4. Check for correct air flow settings - Maintain flows as close as possible to their proper flow setting. Identify and eliminate deviations in flow.
5. Check and adjust time on all recorder charts, timers, clocks, etc. Operate all instruments on Pacific Standard Time throughout the year.

6. Check for obvious analyzer malfunctions. For example, check temperature controllers, mode cycling, timing, pumps operating, wind instruments functional, etc.
7. Precision and Span Checks - Verify nightly precision and/or span checks of analyzers measuring criteria pollutants (O<sub>3</sub>, SO<sub>2</sub>, NO<sub>2</sub>, and CO). Precision checks must be made at the following concentrations:

	<u>Precision</u>	<u>Span</u>
O <sub>3</sub> , SO <sub>2</sub> , and NO <sub>2</sub> :	0.09 ± 0.01ppm	~80% FS
CO:	9.0 ± 1.0ppm	~80% FS

These checks are required by the Code of Federal Regulations, 40 CFR Part 58, Appendix A.3, for all data supplied to the ARB data banks.

2.0.1.2 WEEKLY TASKS - Perform the following tasks weekly.

1. Zero and span analyzers - See the appropriate appendices for the procedures applicable to specific analyzers.
2. Review and read data for the week - Check charts for excessive zero and span drifts, non-characteristic traces, or “dead” traces. Forward the charts to your immediate supervisor.
3. Check flowmeters - Vary air flow rates to determine that the float is not sticking. As required, clean according to the procedures set forth for individual analyzers. Reset to the proper flow setting as indicated on the most recent calibration report.
4. Complete the weekly portion of the Monthly Quality Control Maintenance Checksheet.
5. Review your existing supplies and reorder items that are in low supply. E-mail list of reorder items to your immediate supervisor.

2.0.1.3      MONTHLY TASKS - Perform the following tasks at least monthly.

1.      Leak checks - see the appropriate appendices for the procedures applicable to specific analyzers. Leak check pressurized gas lines using a soap bubble solution, "Snoop," or equivalent. (Leak checks should also be performed each time a cylinder is installed).
2.      Lubricate equipment - See the appropriate appendices or manufacturer's instructions for the proper procedures.
3.      Check the sampling probe - Check for breaks, obstructions, or foreign materials. Tighten fittings as required.
4.      Complete Monthly Quality Control Maintenance Check Sheet - Retain the copy with the instrument log and forward the original to your second level reviewer.
5.      Send completed charts, summaries, etc. to your second level reviewer. These should be sent in no later than seven days after the end of the month.

TABLE 2.0.1.1

Minimum Usable Pressures for Compressed Gas Cylinders

<u>Category</u>	<u>Minimum Usable Pressure</u>
1. CO/CH <sub>4</sub> blends, CO, CH <sub>4</sub> , calibrated zero air, hydrogen, nitrogen, compressed air*	200 psig
2. NO, NO <sub>2</sub> , SO <sub>2</sub> , H <sub>2</sub> S, CO/CH <sub>4</sub> /NO blends, CO/CH <sub>4</sub> /NO/SO <sub>2</sub> blends	300 psig

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\* Indicates that a full cylinder should be in house in addition to the cylinder being used. This applies to compressed air only.